

Rexnord Euroflex Disc Couplings





Rexnord Euroflex Disc Couplings — Optimized and Engineered for Your Applications

As part of the Rexnord Coupling portfolio, high-performance Rexnord Euroflex™ Disc Couplings are uniquely designed and manufactured for each and every application they encounter in the energy industry. Whether for a gas turbine driving a power generator on an offshore drilling platform, a steam turbine driving a centrifugal gas compressor in a refinery, or a motor driving a boiler feedwater pump in a thermal power plant, customers can trust their Rexnord Euroflex Disc Couplings have been optimized to ensure reliable operation for the lifetime of the drive train when connecting their critical rotating equipment.

Applications for the energy industry:

- Gas turbine drivers coupled to power generators and compressors
- Steam turbine and motor drivers coupled to gearboxes and pumps
- Turbo expanders coupled to power generators
- Motors coupled to variable speed planetary gearboxes, boiler feedwater pumps, booster pumps, induced draft, forced draft and cooling tower fans, and compressors
- Hydraulic couplings coupled to boiler feedwater pumps
- Steam turbine drivers coupled to power generators, blowers and compressors
- Gearboxes coupled to power generators and blowers
- Gas turbine, steam turbine and motor drivers coupled to dynamometers (high-speed and high-torque test benches)

Choose Rexnord Euroflex Disc Couplings

Customized and optimized for your application

Unlike a traditional engineered to order (ETO) disc coupling selected from standard sizes, each Rexnord Euroflex Disc Coupling is custom designed and individually produced through a highly efficient, industry-leading engineering and manufacturing process. The result is a true engineered and optimized coupling. The advantage to the customer is they receive a high-performance coupling that is competitive in design with traditional coupling suppliers, and provides an economical solution. By adhering to strict guidelines that specify the components of the coupling, including hardware and disc packs, each Rexnord Euroflex Disc Coupling is customized to fit each customer's application. Our coupling designs are not constrained by a fixed bolt circle diameter or a set number of bolts. This allows Rexnord to truly optimize the coupling for the application.

Highly engineered designs and custom configurations

Ideal for applications with higher-than-normal speed requirements and misalignment needs, Rexnord Euroflex Disc Couplings can be designed to meet weight restrictions and alignment conditions. This is accomplished by incorporating multiple engineered solutions, such as the use of titanium, steel, composite and aluminum materials, and the incorporation of additional flexible disc membranes. Reduced moment configurations, torsional tuning, composite center members, high-misalignment designs, and more, are also available.



In-house manufacturing of disc pack and hardware

The disc packs and assembly hardware of all Rexnord Euroflex Disc Couplings are designed and manufactured in-house, contributing to our industry-leading turnaround times in quoting, designing and manufacturing.

Superior quality controls

Certified to ISO 9001-2008 and supported by our highly-controlled quality management system, each critical dimension of a Rexnord Euroflex Disc Coupling is thoroughly checked before it's shipped to the customer. Additionally, we work with reputable third party inspection agencies when required, including the **American Bureau of Shipping (ABS)**, **American Petroleum Institute (API)**, **Bureau Veritas Group**, **DNV Business Assurance**, **Lloyd's Register Quality Assurance (LRQA)** and **TÜV SÜD America Product Service**.



Features and benefits that help promote uptime:

- Designed and manufactured to meet the specific requirements of the application
- Optimized disc coupling design for high-speed and turbine-driven applications
- Rapid response turnaround and quote generation within 24 to 48 hours
- Low-mass and reduced moment coupling designs for high torque and speed capacities
- Capable of producing couplings with peak torque capacities greater than 17 million in-lbs (2,000,000 Nm)
- Capable of manufacturing couplings for rotating shaft speeds in excess of 30,000 rpm
- Highly engineered disc coupling components, including bolts and disc packs
- Torsionally tuned coupling center member tubes for specific drive train operating conditions
- Close partnership with industry-leading torque measuring and monitoring manufacturers
- Ability to transmit over 120,000 horsepower (90 megawatts)
- Designs that meet API 671, ISO 10441, ATEX, DNV, ABS, and other specifications
- Manufacturing facility certified to ISO 9001-2008



Rexnord Euroflex Disc Couplings for your application

You'll find Rexnord Euroflex Disc Couplings in gas and steam turbine-driven, high-speed motor-driven, gas compression and test bench applications. See more information below on these types of applications and real examples from our customers.



Gas and steam turbine-driven applications

Ideal for your power generation needs, whether for a facility power plant or a generator powering an offshore rig. Our couplings handle higher misalignment capacities and higher torques than most competitor-offered disc couplings.



Gas compression applications

Designed for sophisticated centrifugal, axial, reciprocating and turbo compressors used in catalytic cracking, delayed coking, hydrocracking and reforming applications while fully complying with energy industry standards, such as API and ISO.



Test bench applications

Designed for high-performance and high-speed test bench applications. These no-backlash, high-quality couplings are ideal for the high-accuracy measurements required in a test bench environment.

A look at our **optimized solutions for customer applications**

Rexnord Euroflex Disc Couplings are ideal for your power generation and high-speed compressor needs, providing higher misalignment capacities and higher torque ratings. See examples of optimized customer applications below.



Gas turbine applications

We have extensive experience designing couplings for gas turbine applications with couplings approved for numerous original equipment manufacturer (OEM) customer frames, including:

- **Fertilizer plant:** gas turbine to compressor, 23,767 hp (17,730 kW) at 10,973 rpm
- **Floating production, storage and off-loading (FPSO) ship:** gas turbine to generator, 30,161 hp (22,500 kW) at 13,192 rpm
- **Liquefied natural gas (LNG) upstream facility:** gas turbine to gearbox, 18,633 hp (13,900 kW) at 9,500 rpm



Steam turbine-driven applications

- **Pipeline:** steam turbine to generator, 160,858 hp (120,000 kW) at 3,000 rpm
- **Petrochemical refinery:** steam turbine to compressor, 69,705 hp (52,000 kW) at 3,021 rpm
- **FPSO ship:** steam turbine to compressor, 10,295 hp (7,680 kW) at 12,075 rpm



Compressor applications

- **Pipeline compressor:** gas turbine to compressor, 38,874 hp (29,000 kW) at 7,700 rpm
- **Purified Terephthalic Acid (PTA) plant:** steam turbine to compressor, 71,662 hp (53,460 kW) at 3,021 rpm
- **LNG ship:** gearbox to compressor, 22,015 hp (16,423 kW) at 8,242 rpm

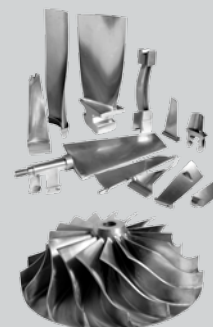


Test bench applications

- **Turbine to gearbox:** 670 hp (500 kW) at 50,000 rpm with an overall length of 10.40 inches (264 mm)
- **Turbine to gearbox:** 536 hp (400 kW) at 45,000 rpm with an overall length of 4.72 inches (120 mm)
- **Race car:** 2,681 hp (2,000 kW) at 28,000 rpm; combination of titanium, aluminum and alloy steel to meet the weight requirements of 9.25 pounds (4.2 kg), over 50 percent lighter than a traditional test bench coupling

Additional expertise: turbomachinery capabilities

In addition to Rexnord Euroflex Disc Couplings, we offer customers additional high-precision manufactured turbomachinery components, including rotors, compressor blades, impellers, pinions, and bull gears. With installations around the world, Rexnord understands critical turbomachinery applications and offers the components needed to keep energy industry facilities operating continuously year-round, no matter the conditions.





Count on Rexnord to support you from specification to post installation for your Rexnord Euroflex Disc Coupling.

Do you have a breakdown or emergency situation forcing you to shut down your critical drive train? Is the coupling the problem and you can't get the answers or solutions you need? Call Rexnord. View the example below to see how Rexnord supports customers in emergency situations.

Urgent customer example:

Rexnord received a call from a large refinery customer in a breakdown situation that had a different coupling manufacturer's coupling installed. The customer couldn't accept the lead time quoted by the other manufacturer. As a result, the customer turned to Rexnord and we were able to engineer an interchange, and deliver a Rexnord Euroflex Disc Coupling within 48 hours.

Rexnord Euroflex Disc Couplings **Frequently Asked Questions**

Are Rexnord Euroflex Disc Couplings offered and serviced globally?

Yes, they are offered to customers around the world. Additionally, we have global service and technical support capabilities.

What sizes are available?

Because we design and manufacture couplings to best meet the requirements of the application, there are theoretically no restrictions to the size of the coupling.

How long have Rexnord Euroflex Disc Couplings been on the market?

More than 75 years.

Why do Rexnord Euroflex Disc Couplings stand out above the competition?

We provide a unique ability to provide a highly engineered solution designed to meet the specific application requirements with best-in-class turnaround times and customer value.

How can I order?

Contact your local Rexnord representative or contact Rexnord at highperformance@rexnord.com for support.

Why don't Rexnord Euroflex Disc Couplings use scalloped disc packs?

The Rexnord Euroflex Disc Pack is designed and optimized for engineered solutions as well as providing the greatest strength and torque transmission for high-performance applications in the industry. This allows us infinite flexibility in our design, providing the quickest turnaround and most optimization for our customers.

The complete Rexnord Disc Coupling offering

The Rexnord Disc Coupling portfolio provides customers with a range of solutions to choose from for any specific application, including low or high speeds, torques or misalignments. With four disc coupling product lines, we ensure an optimized solution for your specific need.



Rexnord Euroflex Disc Couplings:

- High-torque and high-speed capabilities with low mass
- Engineered and made-to-order, optimized for the application
- Best-in-class customer value and lowest total cost of ownership
- In-house manufacturing of hardware
- Disc packs designed and manufactured per order
- Can meet API 671 and ISO 10441 specifications as required, ISO 9001-2008- and ATEX-certified



Rexnord Addax® Composite Disc Couplings:

- Niche applications of long-span fans in cooling towers, and long-span vertical pumps
- Composite and lightweight
- Corrosion-resistant
- Torsional dampening and tuning capability
- ATEX-certified



Rexnord Thomas® Disc Couplings:

- Low-torque and low-speed capabilities
- Standard stock components
- Configured to order
- Standard stocked hardware
- Flywheel adapters for reciprocating gas compressor applications
- Modularized components
- Can meet API 610 and API 671 specifications as required, ATEX-certified



Rexnord Modulflex® Disc Couplings:

- Niche applications of high-shock load presses, engine-driven reversing loads and marine propulsion drives
- Standard disc modules
- Interference fit bolts
- Modular design — configured to order
- ABS-, DNV-, and ATEX-certified

Solutions for your specific speed and power needs.

High Speed



— Euroflex



— Thomas XTSR71



— Thomas XTSR52



— Thomas Series 44



— Thomas CMR



— Thomas AMR

Low Speed

Rexnord Addax Composite Disc Couplings and Rexnord Modulflex Disc Couplings are designed for niche applications. Learn more by reading the product information to the left.

To learn more about Rexnord Euroflex Disc Couplings and how Rexnord can support your application, contact your local Rexnord representative, or email us at highperformance@rexnord.com

All other inquiries: 866-REXNORD/866-739-6673 (toll-free within the U.S.)
or 414-643-2366 (outside the U.S.)



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414-643-2366 (Outside the U.S.)
www.rexnord.com

Why Choose Rexnord?

When it comes to providing highly engineered products that improve productivity and efficiency for industrial applications worldwide, Rexnord is the most reliable in the industry. Commitment to customer satisfaction and superior value extend across every business function.

Delivering Lowest Total Cost of Ownership

The highest quality products are designed to help prevent equipment downtime and increase productivity and dependable operation.

Valuable Expertise

An extensive product offering is accompanied by global sales specialists, customer service and maintenance support teams, available anytime.

Solutions to Enhance Ease of Doing Business

Commitment to operational excellence ensures the right products at the right place at the right time.

REXNORD

Rexnord Company Overview

Rexnord is a growth-oriented, multi-platform industrial company with leading market shares and highly trusted brands that serve a diverse array of global end markets.

Process & Motion Control

The Rexnord Process & Motion Control platform designs, manufactures, markets and services specified, highly engineered mechanical components used within complex systems where our customers' reliability requirements and the cost of failure or downtime are extremely high.

Water Management

The Rexnord Water Management platform designs, procures, manufactures and markets products that provide and enhance water quality, safety, flow control and conservation.